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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,369	12/17/2004	Christoph Schwan	740105-108	8185

25570 7590 09/10/2010

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EXAMINER	
PAINTER, BRANON C	

ART UNIT	PAPER NUMBER
3635	

NOTIFICATION DATE	DELIVERY MODE
09/10/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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docketing@rmsclaw.com

Office Action Summary	Application No.	Applicant(s)	
	10/518,369	SCHWAN, CHRISTOPH	
	Examiner	Art Unit	
	BRANON C. PAINTER	3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9,10,12,13 and 15-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9,10,12,13 and 15-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 9 is objected to because of the following informalities:

    a. Claim 9, "a interior." For the purpose of this examination, the examiner presumes this should read "an interior."

    b. Claim 9, "a exterior." For the purpose of this examination, the examiner presumes this should read "an exterior."

    c. Claim 9, "wall, space." For the purpose of this examination, the examiner presumes this should read "wall, the space."

    d. Appropriate correction is required for all preceding objections.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

    1. Determining the scope and contents of the prior art.
    2. Ascertaining the differences between the prior art and the claims at issue.
    3. Resolving the level of ordinary skill in the pertinent art.
    4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claims 9, 10, 13, and 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vatet (2,298,319) in view of Miele et al. (3,999,349) and Riegler (5,529,624).**

5. Regarding claims 9 and 17:

   a. Vatet discloses a wall construction including:

      i. Interior and exterior masonry walls (Fig. 2).

      ii. An air layer formed filling a space extending fully between the front and rear walls (Fig. 2).

   b. Vatet does not expressly disclose a metal heat reflective layer applied directly on the exterior side of the front masonry wall.

   c. Miele discloses masonry walls (10, 16, Fig. 4), wherein one wall has a metal reflective layer provided directly thereon (17).

   d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the exterior wall of Vatet by bonding a reflective layer of aluminum directly thereon as taught by Miele, in order to provide the system with a vapor barrier (c. 3, 36-37) capable of also insulating the system by reflecting heat radiation.

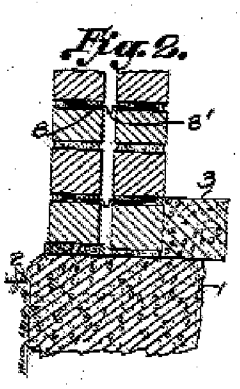
   e. Vatet/Miele does not expressly disclose that the air layer is stationary, although Vatet does disclose solid metal crossties (8) which can be assumed to add some limitation to the movement of air therethrough.

   f. Riegler discloses a cavity masonry wall (2, 5, Fig. 2) with an air space therebetween which is stationary (3; c. 4, 57-59).

g. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the air space of Vatet by providing bars of convection blockers (Fig. 2; c. 4, 57-59) resulting in a “dead” air space of stationary air as taught by Riegler, in order to provide superior insulation to the cavity wall.

h. The examiner further notes Riegler’s disclosure that dead air spaces have superior insulative abilities (c. 5, 16-23, Table 1).

i. The examiner notes that applicant provides no criticality for the positioning of the reflective layer on the exterior wall (rather than the interior wall), and that a reflective layer on either wall is capable of reflecting heat towards the interior of a building as suggested by applicant.



Reproduced from Vatet

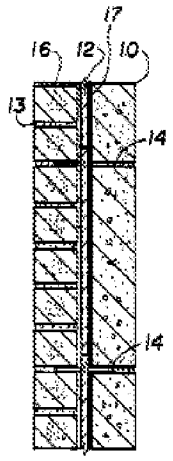


FIG. 4
Reproduced from Miele

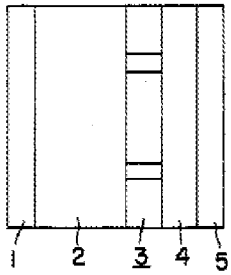


FIG. 2

Reproduced from Riegler

6. Regarding claims 10 and 18, Vatet/Miele/Riegler as modified above discloses a cavity wall with reflecting layer and stationary air layer, with Vatet further disclosing construction elements of bricks (Fig. 2).
7. Regarding claims 13 and 19, Vatet/Miele/Riegler as modified above discloses a cavity wall with reflecting layer and stationary air layer, with Miele further disclosing an aluminum reflective layer (17).
8. Regarding claim 15:

a. Vatet/Miele/Riegler discloses the claimed invention except for a front masonry wall with a thickness of more than 60mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a front brickwork of this thickness, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *MPEP 2144.05*.

9. Regarding claim 16, Vatet/Miele/Riegler as modified above discloses a cavity wall with reflecting layer and stationary air layer, with Vatet further disclosing an exterior wall of façade plates (Fig. 2) coated with a reflective layer.

a. The examiner notes that the masonry elements of Vatet are considered façade plates, since they form a façade, since bricks are essentially plates, and since the claim provides no further structure precluding such an interpretation.

a. The examiner further notes applicant's disclosure that various alternate construction elements could be used as would be appreciated by one skilled in the art and without departing from the scope of the invention (bricks, building blocks, and façade plates are equivalents: claims 10, 18).

10. Regarding claim 20, Vatet/Miele/Riegler as modified above discloses a cavity wall with reflecting layer and stationary air layer, with Riegler further disclosing an air space subdivided into static air chambers by bars that restrict circulation (Fig. 2) as set forth in the rejection above.

11. Regarding claim 21:

    a. Vatet/Miele/Riegler discloses the claimed invention except for a front masonry wall with a thickness of approximately 30mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a front brickwork of this thickness, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *MPEP 2144.05*.

12. **Claims 9, 10, 12, 13, and 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vatet (2,298,319) in view of Kotrotsios (6,397,554) and Riegler (5,529,624).**

13. Regarding claim 9 and 17:

    a. Vatet discloses a wall construction including:

        i. Interior and exterior masonry walls (Fig. 2).

        ii. An air layer formed filling a space extending fully between the front and rear walls (Fig. 2).

    b. Vatet does not expressly disclose a metal heat reflective layer applied directly on the exterior masonry wall.

    c. Kotrotsios discloses a cavity wall, wherein the exterior wall (8f, 9f, Fig. 13) has a reflective layer provided directly thereon (6f; c. 4, 54-61) and comprising metal (c. 4, 6-61).

d. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the exterior wall of Vatet by applying a reflective layer directly thereon as taught by Kotrotsios, in order to provide the system with the capability of increased insulation of the system by reflecting heat radiation.

e. Vatet/Kotrotsios does not expressly disclose that the air layer is stationary, although Vatet does disclose solid metal crossties (8) which can be assumed to add some limitation to the movement of air therethrough.

f. Riegler discloses a cavity masonry wall (2, 5, Fig. 2) with an air space therebetween which is stationary (3; c. 4, 57-59).

g. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the air space of Vatet by providing bars of convection blockers (Fig. 2; c. 4, 57-59) resulting in a "dead" air space of stationary air as taught by Riegler, in order to provide superior insulation to the cavity wall.

h. The examiner further notes Riegler's disclosure that dead air spaces have superior insulative abilities (c. 5, 16-23, Table 1).

14. Regarding claim 10 and 18, Vatet/Kotrotsios/Riegler as modified above discloses a cavity wall with reflecting layer and stationary air layer, with Vatet further disclosing construction elements of bricks (Fig. 2).

15. Regarding claim 12, Vatet/Kotrotsios/Riegler as modified above discloses a cavity wall with reflecting layer and stationary air layer, with Kotrotsios further disclosing a vapor-deposited reflective layer (6f; c. 4, 54-61).

16. Regarding claims 13 and 19, Vatet/Kotrotsios/Riegler as modified above discloses a cavity wall with reflecting layer and stationary air layer, with Kotrotsios further disclosing an aluminum reflective layer (6f; c. 4, 6-61).

17. Regarding claim 15:

    a. Vatet/Kotrotsios/Riegler discloses the claimed invention except for an exterior masonry wall with a thickness of more than 60mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a front brickwork of this thickness, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *MPEP 2144.05*.

18. Regarding claim 16, Vatet/Kotrotsios/Riegler as modified above discloses a cavity wall with reflecting layer and stationary air layer, with Vatet further disclosing an exterior wall of façade plates (Fig. 2) coated with a reflective layer.

    b. The examiner notes that the masonry elements of Vatet are considered façade plates, since they form a façade, since bricks are essentially plates, and since the claim provides no further structure precluding such an interpretation.

a. The examiner further notes applicant's disclosure that various alternate construction elements could be used as would be appreciated by one skilled in the art and without departing from the scope of the invention (bricks, building blocks, and façade plates are equivalents: claims 10, 18).

19. Regarding claim 20, Vatet/Kotrotsios/Riegler as modified above discloses a cavity wall with reflecting layer and stationary air layer, with Riegler further disclosing an air space subdivided into static air chambers by bars that restrict circulation (Fig. 2) as set forth in the rejection above.

20. Regarding claim 21:

a. Vatet/Kotrotsios/Riegler discloses the claimed invention except for a front masonry wall with a thickness of approximately 30mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a front brickwork of this thickness, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *MPEP 2144.05*.

Response to Arguments

21. Applicant's arguments filed 06/14/10 have been fully considered but they are not persuasive.

22. Applicant argues that the barrier of Miele is not disclosed as being heat-reflective. However, Miele discloses an aluminum barrier necessarily capable of heat

reflection. The examiner notes that applicant's heat-reflective layer is also made of aluminum, a known heat-reflective material.

23. Applicant argues that the reflective barrier of Miele is present on the wrong surface of the wall. However, the combination teaches application of the reflective barrier on the exterior wall, as set forth above.

24. The examiner further notes that applicant has failed to provide criticality for the specific positioning of his layer. A reflective barrier is capable of reflecting heat from the interior back into the interior, regardless of whether it is positioned on the interior or exterior wall.

25. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

26. Applicant suggests that it would not have been obvious to remove the insulation layers of Riegler and Miele bordering Riegler's dead air spaces. However, such a removal is immaterial, as these are secondary references used to modify the primary reference Vatet, which does not include any insulation that would be necessary to remove in order to meet the claim limitations.

27. Applicant continues to direct arguments against individual references, this time with respect to Kotrotsios, arguing that he fails to teach masonry walls. As explained

above regarding other references, Kotrotsios is not relied upon to teach such structure and is not required to, as it is taught by the primary reference Vatet.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRANON C. PAINTER whose telephone number is (571)270-3110. The examiner can normally be reached on Mon-Fri 7:30AM-5:00PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rich Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Branon Painter
Examiner
Art Unit 3633

/Basil Katcheves/
Primary Examiner, Art Unit 3635